

# **KDHE GUIDANCE FOR COMPLETION OF A STORMWATER MANAGEMENT PROGRAM DOCUMENT IN COMPLIANCE WITH THE REQUIREMENTS OF AN MS4 NPDES STORMWATER PERMIT**

## **A. General Guidance and Background**

The Municipal Separate Storm Sewer System (MS4) NPDES stormwater permits issued by KDHE require preparation of a Stormwater Management Program (SMP) document, also referred to as a stormwater management plan. The acronym SMP is used to help differentiate this plan from other plans required by NPDES stormwater permits in Kansas. Both industrial stormwater permits as well as construction stormwater general permits call for development of a Stormwater Pollution Prevention (SWP2) Plan.

The SMP documents which have been prepared by various NPDES permitted MS4 municipalities in Kansas range from documents of a few pages to documents contained in multiple three ring binders with several hundred pages. The purpose of this guidance document is to identify the requirements for an SMP document and help to avoid development of a document excessively long and detailed or too brief and unacceptable.

The SMP document should comply with the requirements of the permit and may also satisfy other needs of the permittee. As an example some SMP documents include multiyear capital improvement plans, this is not required by the MS4 permit but may be useful to the permittee. Additionally, some municipalities may have established a stormwater utility and imposed a stormwater fee for property owners. The present fee schedule and ordinance may be included in the SMP document, however, there is no requirement within the MS4 permit for the permittee to impose a stormwater utility fee nor include such documents in the SMP.

The MS4 permit should be fully read and understood prior to writing or updating the SMP document. Typically, the MS4 permits require the SMP document be drafted or updated with the intent of implementing a program designed to:

- 1) Reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable.
- 2) Fully implement the six minimum control measures as presented in the permit.
- 3) Satisfy the requirements of the permit, the Clean Water Act and Kansas surface water quality statutes and regulations.

The permit defines Maximum Extent Practicable as implementation of the Best Management Practices (BMPs) as specified in the SMP. However, failure to implement the BMP in a manner to achieve the measurable goal or failure to implement reasonable goals can constitute a failure to comply with the permit and may place the permittee in jeopardy of enforcement by KDHE. Please note, these MS4 NPDES permits are joint State of Kansas and Federal permits and the Federal Government, normally the Environmental Protection Agency, can also bring enforcement action for failure to comply with the permit. Federal regulations and the permit require implementation of BMPs to achieve improvements in stormwater quality and are expected to result in significant reductions of pollutants discharged into surface waterbodies.

There are six minimum control measures for which BMPs are to be implemented to attenuate the discharge of pollutants in stormwater. This document does not define specific BMPs and associated measurable goals which must be implemented for each permittee. Permittees have great discretion in the selection of BMPs and associated measurable goals. However, implemented BMPs should be reasonable, and effective.

The six minimum control measures (and their associated EPA Fact Sheet numbers) are listed as follows:

- 1) Public Education and Outreach (Fact Sheet 2.3)
- 2) Public Participation and Involvement (Fact Sheet 2.4)
- 3) Illicit Discharge Detection and Elimination (Fact Sheet 2.5)
- 4) Construction Site Stormwater Runoff Control (Fact Sheet 2.6)
- 5) Post-Construction Stormwater Management in New Development and Redevelopment Projects (Fact Sheet 2.7)
- 6) Pollution Prevention/Good Housekeeping for Municipal Operations (Fact Sheet 2.8)

The SMP document should at a minimum identify the associated BMPs, their goals, and the responsible party or entity tasked with implementation or maintenance of the BMP. Additional guidance and information regarding implementation of BMPs for the six minimum control measures can be obtained from EPA Fact Sheets addressing each of the measures. The Fact Sheets are available from EPA on-line, a search engine should be able to locate them by the fact sheet number, for example "Fact Sheet 2.5".

Additionally, many MS4 NPDES permits require implementation of BMPs to reduce the discharge of TMDL pollutants identified in the permit and also conduct surface water monitoring for various parameters associated with the specified TMDL pollutants. If there are no TMDL pollutants and associated impaired stream or lake identified in the TMDL table within the permit then the permit does not require either implementation of BMPs to reduce TMDL pollutants or surface water monitoring for associated parameters. In the event such BMPs and monitoring are required the SMP document should at a minimum identify the associated BMPs, their goals, the individuals or entity responsible for surface water monitoring, and a map should be included which identifies the surface water monitoring locations.

## B. KDHE Recommended Format and Items Which Should be Included in the SMP Document.

The SMP document should address the program tasks and items necessary to comply with the requirements of the permit. It may address other issues and include additional information so as to provide for the needs of the municipality. KDHE has attempted to provide as much flexibility for the permittee to develop a stormwater program which best serves the needs of the municipality and achieves compliance with the NPDES MS4 permit.

The SMP document should outline stormwater program activities, monitoring requirements, BMPs, BMP goals, reporting requirements, and responsible parties for implementing this work. The document should be sufficiently comprehensive such that if the stormwater manager discontinues employment, some other municipal staff member could review the document and understand the commitments and obligations which must be met to ensure satisfactory operation of the program and continued compliance with the MS4 NPDES permit.

Suggested elements in the document include the following:

- Table of Contents, this may be included if the document is at least moderately long, perhaps 20 pages or more. A table of contents is not required by the MS4 permit.
- An Introductory Section may be helpful to provide an overview of the MS4 permit program and the specific aspects of the local program as it presently exists. A history of how the program developed may be useful. Any such introduction is not required by the MS4 permit.
- A general section which address municipal staff responsibilities should be included. Perhaps a chain of command listing or organizational chart may be helpful. The individual or entity responsible for ensuring the program is enacted in compliance with the MS4 permit should be identified. This need not name specific staff members but simply identify the staff positions who are responsible for various aspects of implementation. This section is required by the MS4 permit.

KDHE recommends within this section a list of general permit requirements be included which may not be addressed subsequently in the document. This list may include such items, if included in the permit, as a requirement to update the SMP document (including any specific items or subjects specified by the permit), the duty to reapply for continued permit coverage prior to expiration of the present permit, update of maps, and an explanation of the management staff responsible for compliance with the stormwater management program. If a schedule of compliance is included in the permit, the schedule should be repeated here and an explanation of how compliance with the schedule will be accomplished should be provided. This entire section is not necessarily required by the permit, but some items addressed above may be required by the permit. This section is required by the MS4 permit.

- A section which addresses the six minimum control measures and specifies the BMPs which the municipality has committed to implement must be included. This section is required by the MS4 permit. Normally the BMPs are included in a table format, and the table should specify:
  1. the individual BMP,
  2. a general description of the BMP,
  3. the measurable goal the municipality commits to achieve,
  4. and the responsible staff positions and/or entities who are principally responsible for implementing and/ or maintaining the BMP.

Guidance for implementing BMPs for the six minimum control measures can be found within Fact Sheets prepared by the EPA. Six separate fact sheets, one for each control measure, are available on-line and are numbered as indicated in the list of control measures on page two. Additionally, a search for “[Stormwater Phase II Final Rule Fact Sheet Series](#)” will normally provide links to the Fact Sheets. The EPA Fact Sheets provide only guidance, they are not a portion of the enforceable NPDES MS4 permit. Review of the Fact Sheets is recommended when drafting or updating the SMP document.

This section should be organized in subsections, one for each of the six minimum control measures. Each subsection should address the BMPs which are to be implemented. In some cases individual BMPs may be repeated under multiple control measures. As an example, distribution of leaflets for public education by inserting them in the utility bills may serve to meet the obligation of implementing one of the BMPs for the Public Education minimum control measure. This same BMP may be repeated under the subsection listing BMPs for control of TMDL pollutants if a commitment to distribute a leaflet addressing proper fertilizer application to lawns is scheduled in late winter with one of the monthly utility bills. This section is required in the SMP document.

An example of a portion of a table listing a few of the BMPs for Illicit Discharge Detection and Elimination is provided on the next page as follows:

Illicit Discharge Detection and Elimination		
BMP Description	Measurable Goal	Responsible Staff
Update the Stormwater GIS map as required.	Updated Stormwater system map will be included with annual report.	Public Works GIS staff of City of Watertown.
Inspect a portion of the MS4 outfalls and their associated collection system for illicit discharges annually.	<p>The number of MS4 stormwater outfalls at the start of the calendar year shall be documented and the number of outfalls with their associated collection system which are inspected shall be documented at the end of the calendar year.</p> <p>Number of MS4 stormwater outfalls inspected by the end of the year shall equal or exceed 5% of the number of outfalls documented at the start of the year.</p>	Public Works staff of City of Watertown.
Any spill reports received by the Public Works Department shall be conveyed to the on-call Public Works staff member for his response or consultation with municipal staff on site.	All spill reports received by the on call Public Works staff member shall be logged in and each of the logged spills (100%) shall be physically attended by the on call staff member (or his designee) or verbal guidance by the staff member/designee shall be provided to municipal staff on site. All spill reports which are logged in shall include documentation of the response.	On call Public Works staff Member City of Watertown.
Review and update the Stormwater Pollution Ordinance No XXXX every other year (even years) with an update of enforcement procedures as needed.	Ordinance reviewed and updated (if required).	Stormwater Director City of Watertown

- If a TMDL table is included in the MS4 permit with TMDL regulated pollutants listed and a listing of targeted streams and/or lakes, the BMPs for which the municipality commits to implement for reduction of the discharge of TMDL pollutants must be identified. In addition to the BMPs the associated measurable goals must also be specified. Normally this is accomplished in a table format similar to the tables addressed above with the six minimum control measures. Any specific requirements specified in the permit for reduction of TMDL regulated pollutants should be repeated in this section and an explanation of how the permittee will achieve compliance with these requirements is to be included. This section must be included if a TMDL table with TMDL pollutants listed in the table is included in the permit.
- A section should be included which addresses required permit compliance activities and scheduled milestones. These requirements are often addressed in the permit in a section titled "Permit Compliance Activities and Schedules".

- A current map of the municipality which illustrates the permit area must be included in the SMP document. These maps may need to be updated each year in conjunction with the annual report. This item is required by the MS4 permit.

## C. SUMMARY

The NPDES MS4 permits require SMP documents be drafted or updated periodically. The current version of the SMP document must be submitted with each annual report provided to KDHE. KDHE reviews the SMP documents, normally an approval letter is not provided as there is no requirement for approval. For documents which are found to be inadequate, notification to the permittee will be provided with a specific request for revision. When SMP documents are reviewed by KDHE, the items which will be checked include the following:

- 1) Review Table of Contents. A table is not required by the permit, it is only recommended at times.
- 2) Review the introductory section. This section is not required by the permit but may be included at the discretion of the permittee.
- 3) Review the general section which address managerial and operational responsibilities. Additionally, this section should address any permit requirements which are not addressed elsewhere in the SMP document. Inclusion of this section is required.
- 4) Review the section which addresses implementation of BMPs for the six minimum control measures. This section is required.
- 5) Review the section, if present, which includes a table for implementation of BMPs for reduction of TMDL pollutants. This section is to be included only if a TMDL table is included in the permit and TMDL pollutants are listed in the table along with the targeted stream(s) and/or lake(s). This section is required if the permit imposes the requirement for TMDL BMPs and surface water monitoring.
- 6) Review the section which addresses permit compliance activities and scheduled milestones. This section is required if a "Permit Compliance Activities and Schedules" section is included in the permit.
- 7) Review the current map of the permit area and confirm updates as needed. The permit area is the area for which the permittee is implementing the stormwater management program. The MS4 permit typically indicates this permit area is either the area within the municipality (normally area within corporate limits of a city) or for municipalities in an urbanized area, as defined by the U. S. Census Bureau, the

area within the permittee's jurisdiction which is also located in the urbanized area. This map is required by the permit and must be included in the SMP document. Urbanized area maps are associated with six municipalities, they are as follows:

- 1) Kansas City,
- 2) Lawrence,
- 3) Topeka,
- 4) St. Joseph, Missouri (small area in Kansas)
- 5) Wichita,
- 6) Manhattan.

Maps of urbanized areas in Kansas can be found on the KDHE Municipal Stormwater Program webpage at the following link - url:

["List of 2010 Urbanized Area Maps" http://www.kdheks.gov/muni/ms4.htm](http://www.kdheks.gov/muni/ms4.htm)